Exhibit Z

Exhibit B-15

Invalidity of U.S. Patent No. 7,301,648 ("'648 Patent")[1] under Pre-AIA Section 102 or Section 103 in view of InterSense IS-300 Precision Motion Tracker ("InterSense IS-300")[2]

InterSense IS-300 was publicly available at least as of 1996. Plaintiffs assert a priority date of January 28, 2000 for the '648 Patent. Even assuming that the '648 Patent is entitled to this priority date, InterSense IS-300 qualifies as prior art under at least pre-AIA Sections 102(a) and (b) to the '648 Patent.

As described herein, the asserted claims of the '648 Patent are invalid (a) under one or more sections of 35 U.S.C. § 102 as anticipated expressly or inherently by InterSense IS-300 (including the documents incorporated into InterSense IS-300 by reference) and (b) under 35 U.S.C. § 103 as obvious in view of InterSense IS-300 standing alone and, additionally, in combination with the knowledge of one of ordinary skill in the art, and/or other prior art, including but not limited to the prior art identified in Defendants' Invalidity Contentions and the prior art described in the claim charts attached in Exhibits B-1 – B-31. With respect to the proposed modifications to InterSense IS-300, as of the priority date of the '648 Patent, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market forces with variations that are predictable to one of ordinary skill in the art, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led one of ordinary skill to modify or combine the prior art references.

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[1] Discovery in this case is ongoing and, accordingly, this invalidity chart is not to be considered final. Defendants have conducted the invalidity analysis herein without having fully undergone claim construction and a *Markman* hearing. By charting the prior art against the claim(s) herein, Defendants are not admitting nor agreeing to Plaintiffs' interpretation of the claims at issue in this case. Additionally, these charts provide representative examples of portions of the charted references that disclose the indicated limitations under Plaintiffs' application of the claims; additional portions of these references other than the representative examples provided herein may also disclose the indicated limitation(s) and Defendants contend that the asserted claim(s) are invalid in light of the charted reference(s) as a whole. Defendants reserve the right to rely on additional citations or sources of evidence that also may be applicable, or that may become applicable in light of claim construction, changes in Plaintiffs' infringement contentions, and/or information obtained during discovery as the case progresses. Further, by submitting these invalidity contentions, Defendants do not waive and hereby expressly reserve their right to raise other invalidity defenses, including but not limited to defenses under Sections 101 and 112. Defendants reserve the right to amend or supplement this claim chart at a later date, including after the Court's order construing disputed claim terms.

[2] The claim limitations described herein were disclosed by the Intersense IS-300 as of the earliest priority date of the '648 patent. For instance: IS-300 Pro Precision Motion Tracker, INTERSENSE (last updated June 4, 2002), https://web.archive.org/web/20021017040949/http://intersense.com/products/prec/is300/is300pro.htm (InterSense IS-300 Ex. 1); IS-300 Precision Motion Tracker, INTERSENSE, http://www.mindflux.com.au/products/isense/is300.pdf (InterSense IS-300 Ex. 2); User Manual for IS-300 and IS-300 Pro Systems Firmware versions 3.0161 and above, INTERSENSE (1999), http://www.mindflux.com.au/products/isense/is300.pdf (InterSense IS-300 Ex. 3); and IS-300 Precision Motion Tracker, INTERSENSE (Nov. 12, 1997), https://web.archive.org/web/19980119142206/http://www.isense.com:80/products.html (InterSense IS-300 Ex. 4).

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All cross-references should be understood to include material that is cross-referenced within the cross-reference. Where a particular figure is cited, the citation should be understood to encompass the caption and description of the figure as well as any text relating to or describing the figure. Conversely, where particular text referring to a figure is cited, the citation should be understood to include the figure as well.

A. INDEPENDENT CLAIM 1

CLAIM 1	InterSense IS-300
[1.pre] A method comprising:	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, a method. No party has yet asserted that the preamble is limiting, nor has the Court construed the preamble as limiting. However, to the extent that the preamble is limiting, it is disclosed by InterSense IS-300. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See, e.g.*:

Exhibit B-15

CLAIM 1	InterSense IS-300

InterSense IS-300 Ex. 1.

Exhibit B-15

CLAIM 1	InterSense IS-300

• *Fast & Smooth*
• *Motion Prediction*
• *Immune to Interference*
• *Unlimited Range*

IS-300 Precision Motion Tracker

The world's fastest and smoothest head and hand orientation tracker.

Slow, jittery virtual environments are now a thing of the past. For the first time, high-fidelity tracking with all the ease-of-use, freedom and robustness inherent in sourceless inertial technology is now possible. Simulator performance and realism are greatly enhanced with the IS-300 from InterSense.

Jitter-Free.
The InterSense IS-300 tracker virtually eliminates the jitter common to other systems. This has been a major deficiency and source of simulator sickness in immersive head-mounted display applications.

Fast Response.
The InterSense IS-300 PRO offers industry leading update rates of up to 500 Hz, for the world's lowest latency tracking. Tracker-induced lag is removed from your virtual environment.

Distortion-Free.
Our patented inertial sensing technology is not susceptible to the electromagnetic interference you've come to expect from competitive tracking technologies. So the InterSense IS-300 offers smooth, steady response, even in noisy, metal-cluttered environments.

Unlimited Range.
The IS-300 is completely sourceless. This means no setup, no line-of-sight constraints and virtually unlimited operating range. The signal processor is small enough to wear on a belt for tetherless application.

Motion Prediction.
The IS-300 PRO can predict motion up to 50 ms in the future, which compensates for graphics rendering delays and further contributes to eliminating simulator lag. InterSense is the *only* company to employ the proven benefits of inertial angular rate and acceleration sensors to provide accurate feed-forward motion prediction.

No Slosh or Drift.
InterSense's proprietary micromachined inertial sensor unit and signal processing virtually eliminates the sloshy response common to inclinometers and the accumulation of drift error that plagues ordinary gyroscopes.

Software Compatibility.
If your application uses software that supports industry-standard trackers, you won't have to change a line of code to use the IS-300!

INTERSENSE

InterSense IS-300 Ex. 2.

Exhibit B-15

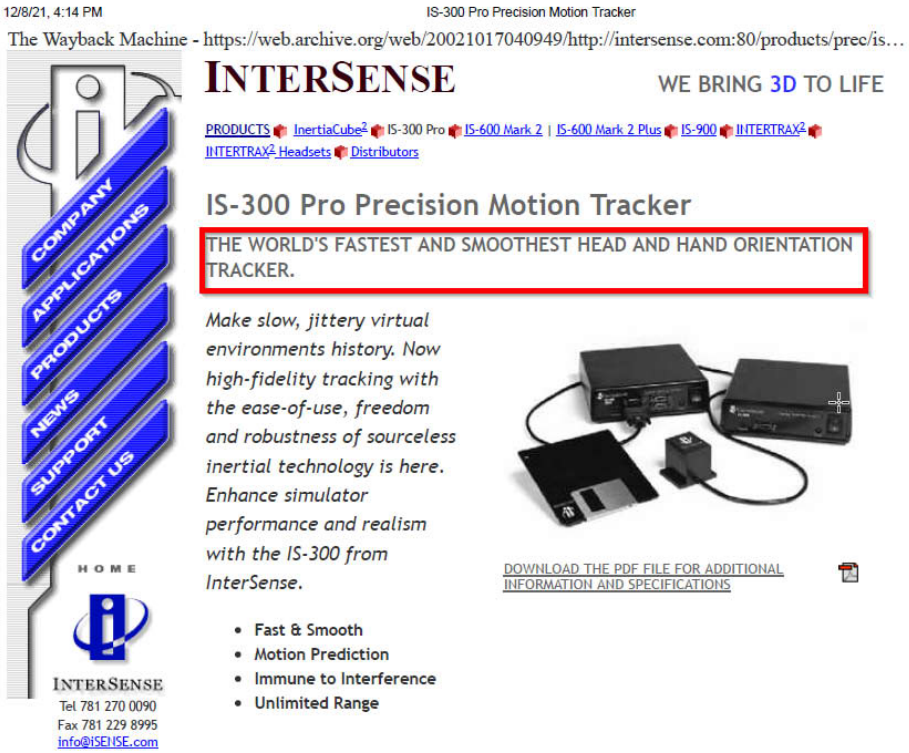
CLAIM 1	InterSense IS-300
	See also Defendants' Invalidity Contentions for further discussion.
[1.a] mounting a sourceless orientation tracker on a user's head,	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, mounting a sourceless orientation tracker on a user's head. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See, e.g.*:  12/8/21, 4:14 PM IS-300 Pro Precision Motion Tracker The Wayback Machine - https://web.archive.org/web/20021017040949/http://intersense.com:80/products/prec/is… INTERSENSE WE BRING 3D TO LIFE PRODUCTS InertiaCube2 IS-300 Pro IS-600 Mark 2 | IS-600 Mark 2 Plus IS-900 INTERTRAX2 INTERTRAX2 Headsets Distributors IS-300 Pro Precision Motion Tracker THE WORLD'S FASTEST AND SMOOTHEST HEAD AND HAND ORIENTATION TRACKER. COMPANY APPLICATIONS PRODUCTS NEWS SUPPORT CONTACT US HOME *Make slow, jittery virtual environments history. Now high-fidelity tracking with the ease-of-use, freedom and robustness of sourceless inertial technology is here. Enhance simulator performance and realism with the IS-300 from InterSense.* DOWNLOAD THE PDF FILE FOR ADDITIONAL INFORMATION AND SPECIFICATIONS • Fast & Smooth • Motion Prediction • Immune to Interference • Unlimited Range INTERSENSE Tel 781 270 0090 Fax 781 229 8995 info@ISENSE.com InterSense IS-300 Ex. 1.

Exhibit B-15

CLAIM 1	InterSense IS-300

• Fast & Smooth
• Motion Prediction
• Immune to Interference
• Unlimited Range

IS-300 Precision Motion Tracker

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Slow, jittery virtual environments are now a thing of the past. For the first time, high-fidelity tracking with all the ease-of-use, freedom and robustness inherent in sourceless inertial technology is now possible. Simulator performance and realism are greatly enhanced with the IS-300 from InterSense.

Jitter-Free.
The InterSense IS-300 tracker virtually eliminates the jitter common to other systems. This has been a major deficiency and source of simulator sickness in immersive head-mounted display applications.

Fast Response.
The InterSense IS-300 PRO offers industry leading update rates of up to 500 Hz, for the world's lowest latency tracking. Tracker-induced lag is removed from your virtual environment.

Distortion-Free.
Our patented inertial sensing technology is not susceptible to the electromagnetic interference you've come to expect from competitive tracking technologies. So the InterSense IS-300 offers smooth, steady response, even in noisy, metal-cluttered environments.

Unlimited Range.
The IS-300 is completely sourceless. This means no setup, no line-of-sight constraints and virtually unlimited operating range. The signal processor is small enough to wear on a belt for tetherless application.

Motion Prediction.
The IS-300 PRO can predict motion up to 50 ms in the future, which compensates for graphics rendering delays and further contributes to eliminating simulator lag. InterSense is the *only* company to employ the proven benefits of inertial angular rate and acceleration sensors to provide accurate feed-forward motion prediction.

No Slosh or Drift.
InterSense's proprietary micromachined inertial sensor unit and signal processing virtually eliminates the sloshy response common to inclinometers and the accumulation of drift error that plagues ordinary gyroscopes.

Software Compatibility.
If your application uses software that supports industry-standard trackers, you won't have to change a line of code to use the IS-300!

INTERSENSE

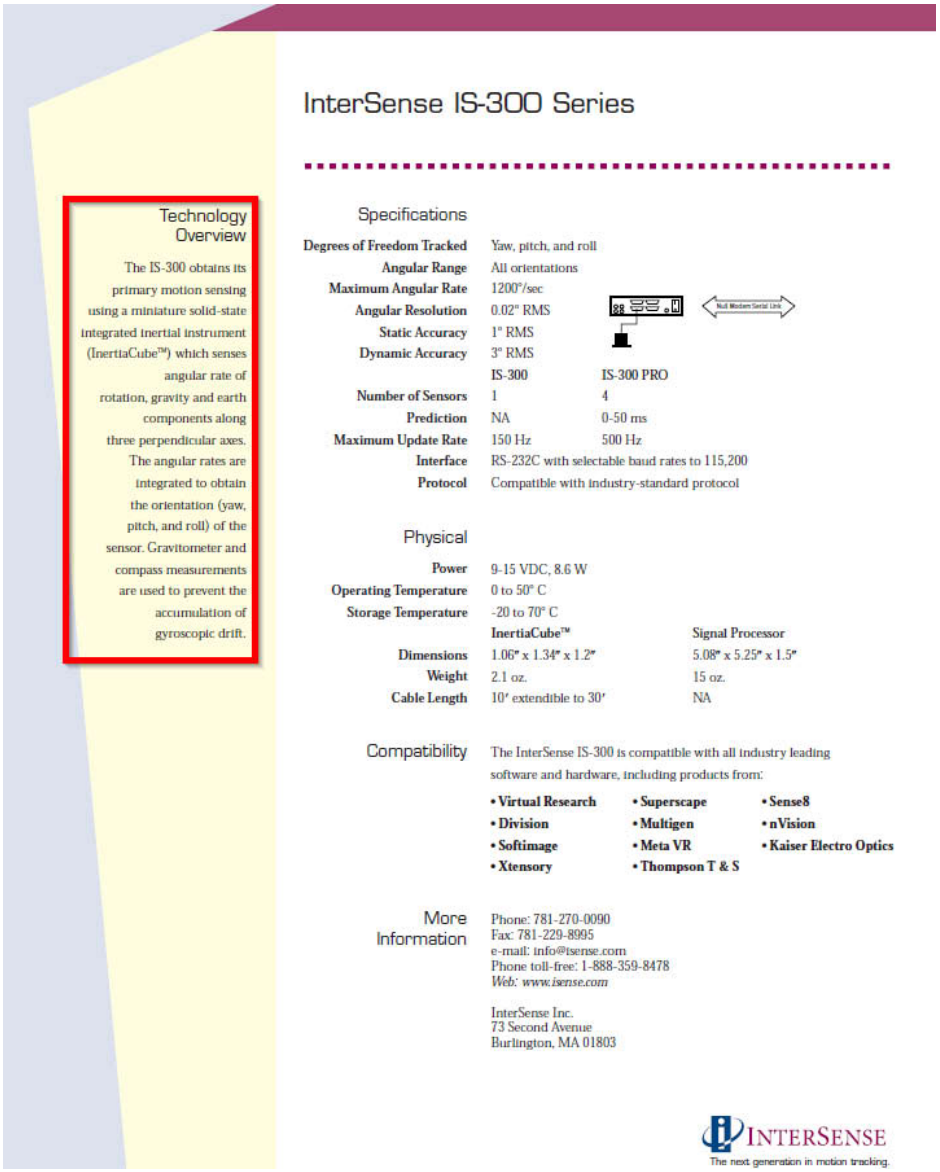
InterSense IS-300 Ex. 2.

Exhibit B-15

CLAIM 1	InterSense IS-300
	See also Defendants' Invalidity Contentions for further discussion.
[1.b] using a position tracker comprising a radiated energy detector to track a position of a first localized feature associated with a body part of the user other than the head relative to the user's head; and	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, using a position tracker comprising a radiated energy detector to track a position of a first localized feature associated with a body part of the user other than the head relative to the user's head. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See, e.g.*:

Exhibit B-15

CLAIM 1	InterSense IS-300



InterSense IS-300 Series

Technology Overview

The IS-300 obtains its primary motion sensing using a miniature solid-state integrated inertial instrument (InertiaCube™) which senses angular rate of rotation, gravity and earth components along three perpendicular axes. The angular rates are integrated to obtain the orientation (yaw, pitch, and roll) of the sensor. Gravitometer and compass measurements are used to prevent the accumulation of gyroscopic drift.

Specifications

Degrees of Freedom Tracked	Yaw, pitch, and roll	
Angular Range	All orientations	
Maximum Angular Rate	1200°/sec	
Angular Resolution	0.02° RMS	
Static Accuracy	1° RMS	
Dynamic Accuracy	3° RMS	
	IS-300	**IS-300 PRO**
Number of Sensors	1	4
Prediction	NA	0-50 ms
Maximum Update Rate	150 Hz	500 Hz
Interface	RS-232C with selectable baud rates to 115,200	
Protocol	Compatible with industry-standard protocol	

Physical

Power	9-15 VDC, 8.6 W	
Operating Temperature	0 to 50° C	
Storage Temperature	-20 to 70° C	
	InertiaCube™	**Signal Processor**
Dimensions	1.06" x 1.34" x 1.2"	5.08" x 5.25" x 1.5"
Weight	2.1 oz.	15 oz.
Cable Length	10' extendible to 30'	NA

Compatibility

The InterSense IS-300 is compatible with all industry leading software and hardware, including products from:

- **Virtual Research**
- **Division**
- **Softimage**
- **Xtensory**
- **Superscape**
- **Multigen**
- **Meta VR**
- **Thompson T & S**
- **Sense8**
- **nVision**
- **Kaiser Electro Optics**

More Information

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Fax: 781-229-8995
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Phone toll-free: 1-888-359-8478
Web: www.isense.com

InterSense Inc.
73 Second Avenue
Burlington, MA 01803

INTERSENSE
The next generation in motion tracking.

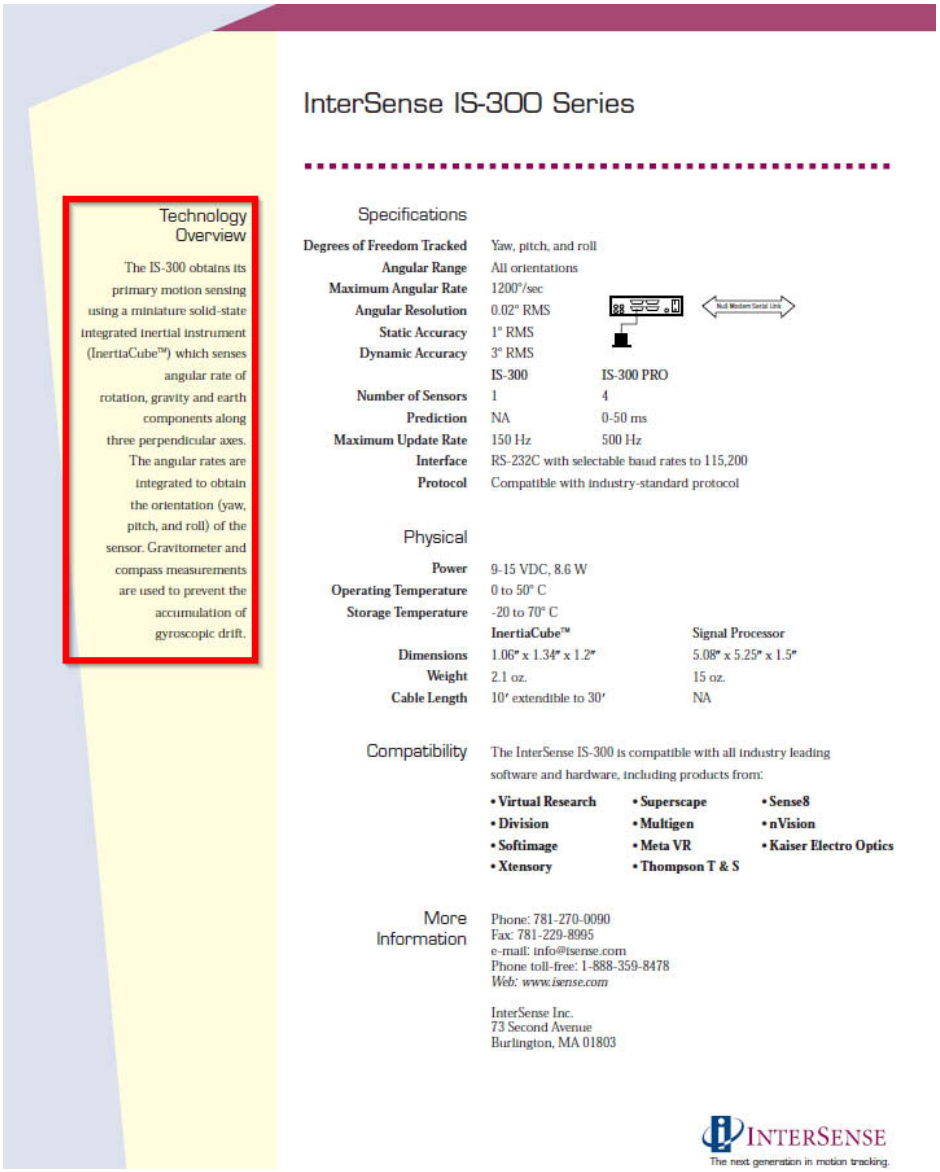
InterSense IS-300 Ex. 2.

Exhibit B-15

CLAIM 1	InterSense IS-300
	See also Defendants' Invalidity Contentions for further discussion.
[1.c] generating data representative of the tracked position.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, generating data representative of the tracked position. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See, e.g.*:

Exhibit B-15

CLAIM 1	InterSense IS-300



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Technology Overview

The IS-300 obtains its primary motion sensing using a miniature solid-state integrated inertial instrument (InertiaCube™) which senses angular rate of rotation, gravity and earth components along three perpendicular axes. The angular rates are integrated to obtain the orientation (yaw, pitch, and roll) of the sensor. Gravitometer and compass measurements are used to prevent the accumulation of gyroscopic drift.

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Degrees of Freedom Tracked	Yaw, pitch, and roll	
Angular Range	All orientations	
Maximum Angular Rate	1200°/sec	
Angular Resolution	0.02° RMS	
Static Accuracy	1° RMS	
Dynamic Accuracy	3° RMS	
	IS-300	**IS-300 PRO**
Number of Sensors	1	4
Prediction	NA	0-50 ms
Maximum Update Rate	150 Hz	500 Hz
Interface	RS-232C with selectable baud rates to 115,200	
Protocol	Compatible with industry-standard protocol	

Physical

Power	9-15 VDC, 8.6 W	
Operating Temperature	0 to 50° C	
Storage Temperature	-20 to 70° C	
	InertiaCube™	**Signal Processor**
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More Information

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InterSense IS-300 Ex. 2.

Exhibit B-15

CLAIM 1	InterSense IS-300
	See also Defendants' Invalidity Contentions for further discussion.

B. DEPENDENT CLAIM 2

CLAIM 2	InterSense IS-300
[2] The method of claim 1, further comprising mounting a virtual reality display on the user's head that contains one or more objects.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 1, further comprising mounting a virtual reality display on the user's head that contains one or more objects. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

C. DEPENDENT CLAIM 3

CLAIM 3	InterSense IS-300
[3] The method of claim 2, further comprising using said tracked position to display in the virtual reality display an interaction of said body part with an object of said one or more objects.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 2, further comprising using said tracked position to display in the virtual reality display an interaction of said body part with an object of said one or more objects. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 2, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

D. DEPENDENT CLAIM 4

CLAIM 4	InterSense IS-300
[4] The method of claim 3, wherein said interaction comprises virtual direct manipulation of said object by the user.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 3, wherein said interaction comprises virtual direct manipulation of said object by the user. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 3, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

E. DEPENDENT CLAIM 5

CLAIM 5	InterSense IS-300
[5] The method of claim 3, wherein said interaction comprises a scaled-world grab.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 3, wherein said interaction comprises a scaled-world grab. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 3, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

F. DEPENDENT CLAIM 8

CLAIM 8	InterSense IS-300
[8] The method of claim 3, wherein said object includes a second body part, and wherein displaying said interaction comprises	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 3, wherein said object includes a second body part, and wherein displaying said interaction comprises displaying a relative position between said body part and said second body part. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art.

CLAIM 8	InterSense IS-300
displaying a relative position between said body part and said second body part.	*See* Disclosures with respect to Claim 3, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

G. DEPENDENT CLAIM 9

CLAIM 9	InterSense IS-300
[9] The method of claim 3, further comprising, in response to the user virtually grabbing an object displayed in the virtual reality display, moving the user toward the object in the virtual reality display.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 3, further comprising, in response to the user virtually grabbing an object displayed in the virtual reality display, moving the user toward the object in the virtual reality display. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 3, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

H. DEPENDENT CLAIM 10

CLAIM 10	InterSense IS-300
[10] The method of claim 3, wherein the virtual reality display has a frame of reference and further comprising determining a change in position of the user's	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 3, wherein the virtual reality display has a frame of reference and further comprising determining a change in position of the user's head and, in response to said change in position, changing the viewpoint of the virtual reality display relative to the frame of reference. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art.

CLAIM 10	InterSense IS-300
head and, in response to said change in position, changing the viewpoint of the virtual reality display relative to the frame of reference.	*See* Disclosures with respect to Claim 3, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

I. DEPENDENT CLAIM 11

CLAIM 11	InterSense IS-300
[11] The method of claim 10, wherein determining a change in position comprises determining a change in the position of the user's head relative to said body part.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 10, wherein determining a change in position comprises determining a change in the position of the user's head relative to said body part. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 10, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

J. DEPENDENT CLAIM 16

CLAIM 16	InterSense IS-300
[16] The method of claim 1, further comprising using signals obtained from said sourceless orientation tracker to compute a	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 1, further comprising using signals obtained from said sourceless orientation tracker to compute a distance traveled by said user in a virtual reality environment, and generating data representative of such distance. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art.

CLAIM 16	InterSense IS-300
distance traveled by said user in a virtual reality environment; and generating data representative of such distance.	*See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

K. DEPENDENT CLAIM 17

CLAIM 17	InterSense IS-300
[17.a] The method of claim 1, further comprising: (a) providing a virtual reality display having a frame of reference;	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 1, further comprising providing a virtual reality display having a frame of reference. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.
[17.b] (b) displaying in said virtual reality display an object associated with said body part;	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, displaying in said virtual reality display an object associated with said body part. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.
[17.c] (c) providing an input mechanism for receiving an input from said user;	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, providing an input mechanism for receiving an input from said user. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art.

Exhibit B-15

CLAIM 17	InterSense IS-300
	See Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.
[17.d] (d) operating said virtual reality display in a first mode comprising, in response to a change in said tracked position, displaying a change in the apparent position of said object relative to said frame of reference; and	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, operating said virtual reality display in a first mode comprising, in response to a change in said tracked position, displaying a change in the apparent position of said object relative to said frame of reference. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.
[17.e] (e) in response to an input from said input device, operating said virtual reality display in a second mode, comprising in response to a change in said tracked position, displaying a constant apparent position of said object relative to said frame of reference.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, in response to an input from said input device, operating said virtual reality display in a second mode, comprising in response to a change in said tracked position, displaying a constant apparent position of said object relative to said frame of reference. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

L. DEPENDENT CLAIM 18

CLAIM 18	InterSense IS-300
[18] The method of claim 17 wherein, in said second mode, in response to a change in said tracked position, the viewpoint of said virtual reality display changes relative to said frame of reference.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 17 wherein, in said second mode, in response to a change in said tracked position, the viewpoint of said virtual reality display changes relative to said frame of reference. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

M. DEPENDENT CLAIM 20

CLAIM 20	InterSense IS-300
[20] The method of claim 1, further comprising providing a head mounted display including a body stabilized information cockpit and displaying data to a user using such display.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 1, further comprising providing a head mounted display including a body stabilized information cockpit and displaying data to a user using such display. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

N. DEPENDENT CLAIM 21

CLAIM 21	InterSense IS-300
[21] The method of claim 20, wherein said information cockpit comprises a clear windshield.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 20, wherein said information cockpit comprises a clear windshield. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 20, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

O. DEPENDENT CLAIM 22

CLAIM 22	InterSense IS-300
[22] The method of claim 21, further comprising, in response to user selection of an object of the one or more objects, displaying an information display window in the head mounted display.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 21, further comprising, in response to user selection of an object of the one or more objects, displaying an information display window in the head mounted display. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 21, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

P. DEPENDENT CLAIM 23

CLAIM 23	InterSense IS-300
[23] The method of claim 22, wherein said information cockpit	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 22, wherein said information cockpit comprises a clear windshield and further comprising fixing said information display window to said clear windshield. In the alternative, this element would be obvious

CLAIM 23	InterSense IS-300
comprises a clear windshield and further comprising fixing said information display window to said clear windshield.	over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 22, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

Q. DEPENDENT CLAIM 24

CLAIM 24	InterSense IS-300
[24] The method of claim 20, wherein said information cockpit comprises one or more objects.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 20, wherein said information cockpit comprises one or more objects. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 20, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

R. DEPENDENT CLAIM 25

CLAIM 25	InterSense IS-300
[25] The method of claim 24, further comprising using said tracked position to determine that the user has selected an object of the one or more objects.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 24, further comprising using said tracked position to determine that the user has selected an object of the one or more objects. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 24, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

S. DEPENDENT CLAIM 26

CLAIM 26	InterSense IS-300
[26] The method of claim 24, further comprising modifying the appearance of an object of the one or more objects in response to a change in said tracked position.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 24, further comprising modifying the appearance of an object of the one or more objects in response to a change in said tracked position. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 24, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

T. DEPENDENT CLAIM 27

CLAIM 27	InterSense IS-300
[27] The method of claim 26, wherein modifying the appearance of the object comprises changing the apparent distance of the object from the user in the display.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 26, wherein modifying the appearance of the object comprises changing the apparent distance of the object from the user in the display. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 26, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

U. DEPENDENT CLAIM 28

CLAIM 28	InterSense IS-300
[28] The method of claim 27, wherein the	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 27, wherein the body part is the user's hand, and wherein the change in said tracked position

CLAIM 28	InterSense IS-300
body part is the user's hand, and wherein the change in said tracked position results from the user virtually manipulating the object.	results from the user virtually manipulating the object. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 27, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

V. DEPENDENT CLAIM 29

CLAIM 29	InterSense IS-300
[29] The method of claim 28, wherein said information cockpit includes a clear windshield and further comprising attaching said object to said windshield by virtually manipulating said object.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 28, wherein said information cockpit includes a clear windshield and further comprising attaching said object to said windshield by virtually manipulating said object. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 28, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

W. DEPENDENT CLAIM 30

CLAIM 30	InterSense IS-300
[30] The method of claim 26, wherein said object is a cursor.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 26, wherein said object is a cursor. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art.

CLAIM 30	InterSense IS-300
	See Disclosures with respect to Claim 26, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

X. DEPENDENT CLAIM 31

CLAIM 31	InterSense IS-300
[31] The method of claim 30, wherein said change in said tracked position comprises a component in a plane, and wherein the appearance of the cursor is modified in response to said change by moving it a distance based on magnitude and direction of said planar component.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 30, wherein said change in said tracked position comprises a component in a plane, and wherein the appearance of the cursor is modified in response to said change by moving it a distance based on magnitude and direction of said planar component. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 31, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

Y. DEPENDENT CLAIM 32

CLAIM 32	InterSense IS-300
[32] The method of claim 20, wherein said information cockpit comprises one or more virtual instruments.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 20, wherein said information cockpit comprises one or more virtual instruments. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art.

CLAIM 32	InterSense IS-300
	See Disclosures with respect to Claim 20, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

Z. DEPENDENT CLAIM 35

CLAIM 35	InterSense IS-300
[35] The method of claim 20, further comprising providing in said display indicia of a route toward a destination.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 20, further comprising providing in said display indicia of a route toward a destination. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 20, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

AA. DEPENDENT CLAIM 37

CLAIM 37	InterSense IS-300
[37] The method of claim 20, further comprising detecting a predefined hand gesture of the user and, in response to said hand gesture, resetting the heading direction of said cockpit.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 20, further comprising detecting a predefined hand gesture of the user and, in response to said hand gesture, resetting the heading direction of said cockpit. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 20, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

BB. DEPENDENT CLAIM 38

CLAIM 38	InterSense IS-300
[38] The method of claim 1, further comprising sequentially positioning said localized feature at a first and then a second location, using said position tracker to determine positions of said first and second locations, and computing a distance between said positions, and generating data representative of such distance.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 1, further comprising sequentially positioning said localized feature at a first and then a second location, using said position tracker to determine positions of said first and second locations, and computing a distance between said positions, and generating data representative of such distance. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

CC. INDEPENDENT CLAIM 40

CLAIM 40	InterSense IS-300
[40.pre] A method comprising:	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, a method. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.
[40.a] mounting a first sourceless orientation tracker on a user's head;	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, mounting a first sourceless orientation tracker on a user's head. In the alternative, this element would be obvious

Exhibit B-15

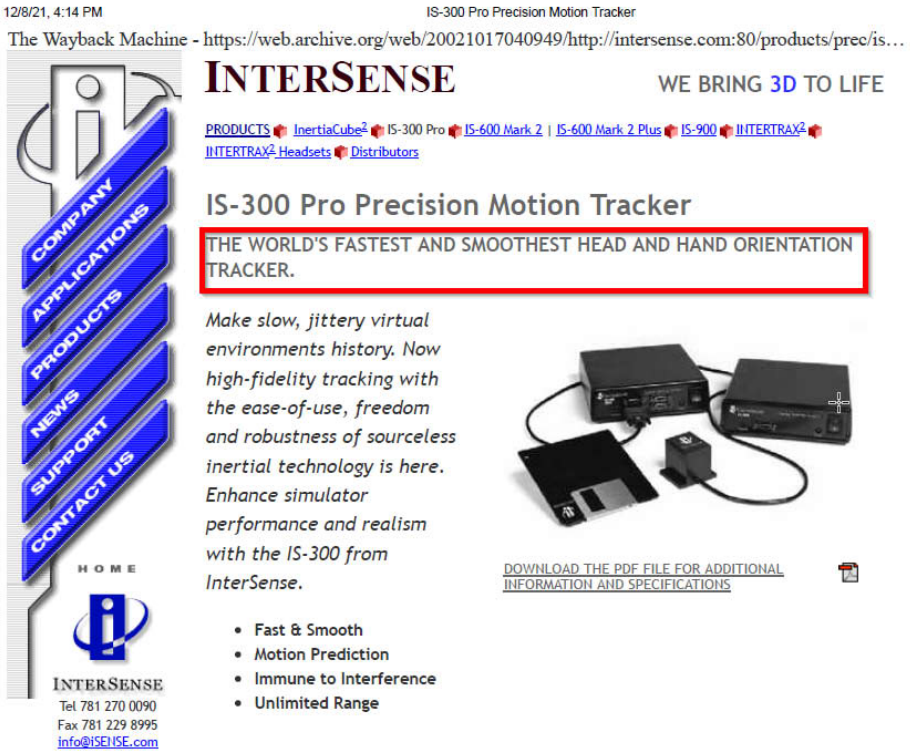
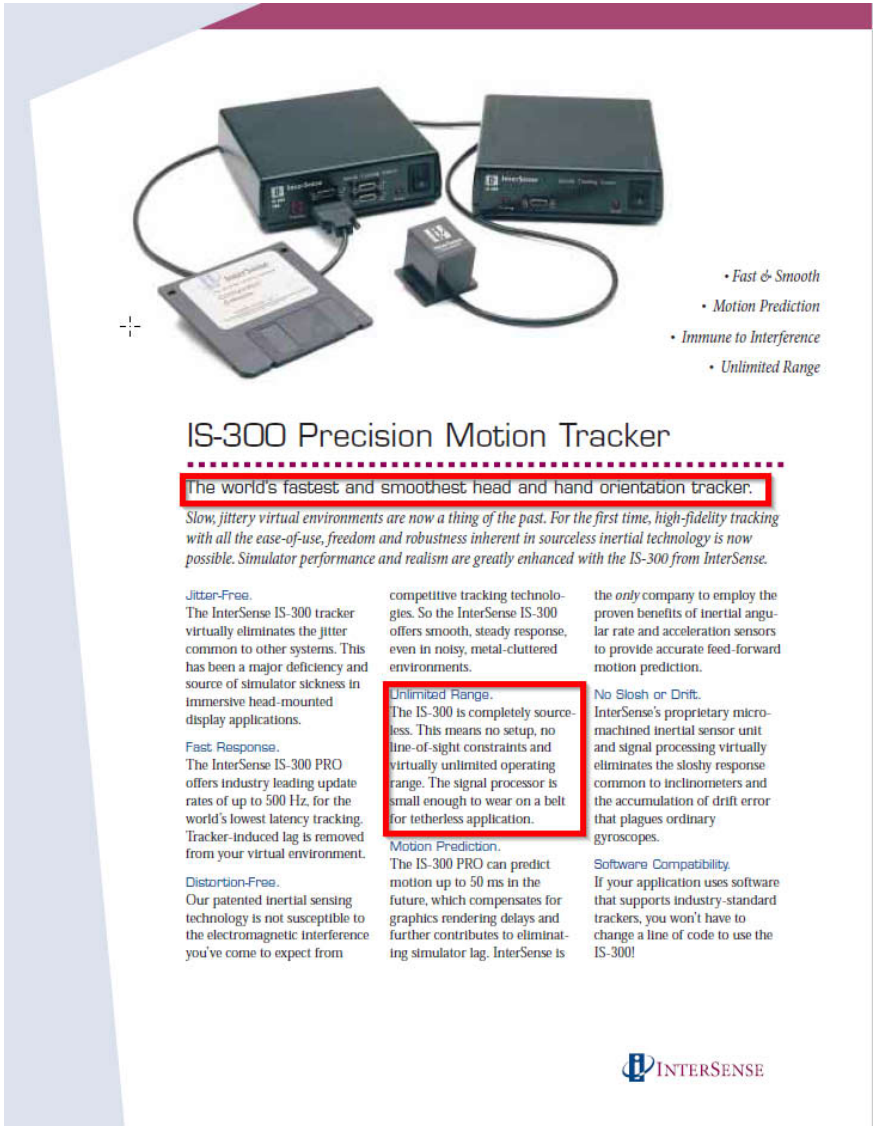
CLAIM 40	InterSense IS-300
	over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See, e.g.*:  InterSense IS-300 Ex. 1.

Exhibit B-15

CLAIM 40	InterSense IS-300



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Jitter-Free.
The InterSense IS-300 tracker virtually eliminates the jitter common to other systems. This has been a major deficiency and source of simulator sickness in immersive head-mounted display applications.

Fast Response.
The InterSense IS-300 PRO offers industry leading update rates of up to 500 Hz, for the world's lowest latency tracking. Tracker-induced lag is removed from your virtual environment.

Distortion-Free.
Our patented inertial sensing technology is not susceptible to the electromagnetic interference you've come to expect from competitive tracking technologies. So the InterSense IS-300 offers smooth, steady response, even in noisy, metal-cluttered environments.

Unlimited Range.
The IS-300 is completely sourceless. This means no setup, no line-of-sight constraints and virtually unlimited operating range. The signal processor is small enough to wear on a belt for tetherless application.

Motion Prediction.
The IS-300 PRO can predict motion up to 50 ms in the future, which compensates for graphics rendering delays and further contributes to eliminating simulator lag. InterSense is the *only* company to employ the proven benefits of inertial angular rate and acceleration sensors to provide accurate feed-forward motion prediction.

No Slosh or Drift.
InterSense's proprietary micromachined inertial sensor unit and signal processing virtually eliminates the sloshy response common to inclinometers and the accumulation of drift error that plagues ordinary gyroscopes.

Software Compatibility.
If your application uses software that supports industry-standard trackers, you won't have to change a line of code to use the IS-300!

INTERSENSE

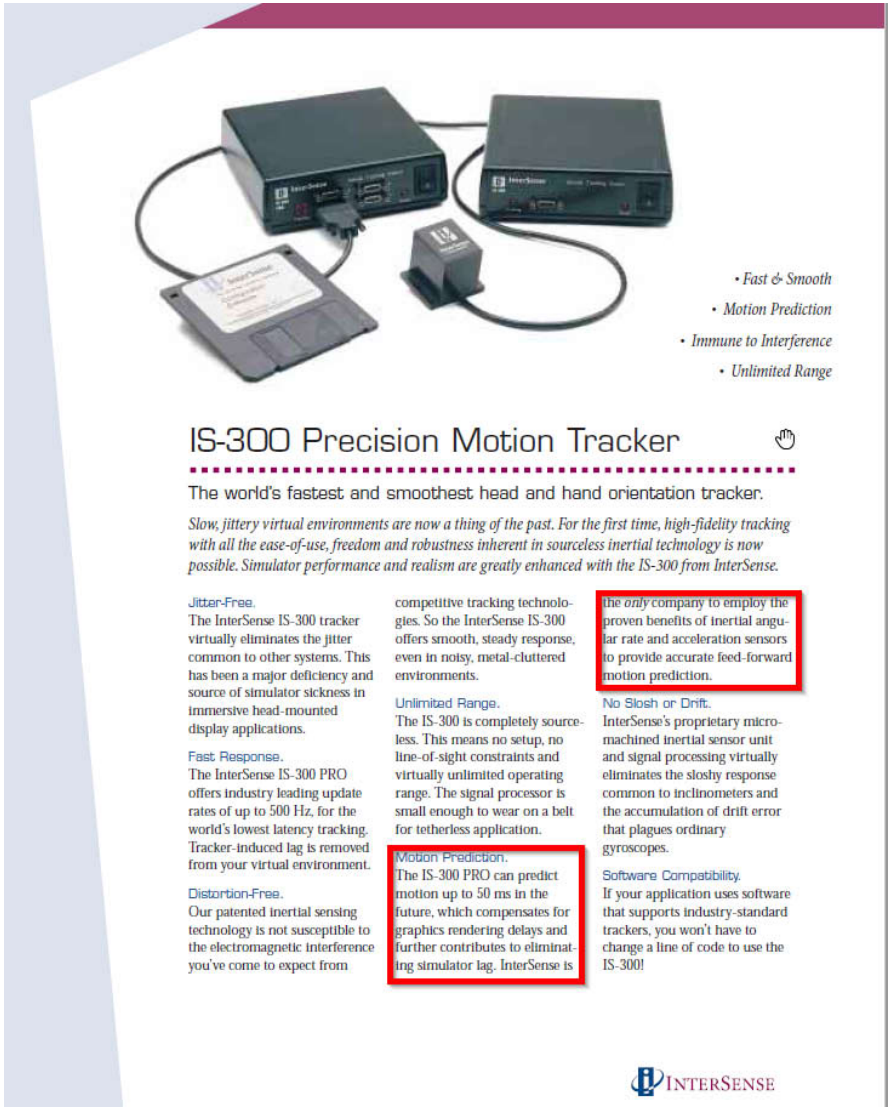
InterSense IS-300 Ex. 2.

Exhibit B-15

CLAIM 40	InterSense IS-300
	See Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.
[40.b] mounting a second sourceless orientation tracker on a body part of the user other than the user's head; and	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, mounting a second sourceless orientation tracker on a body part of the user other than the user's head. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.
[40.c] utilizing angular rate and linear acceleration signals from said first and second trackers to derive a differential inertial signal representative of a motion of the body part relative to the head.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, utilizing angular rate and linear acceleration signals from said first and second trackers to derive a differential inertial signal representative of a motion of the body part relative to the head. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See, e.g.*:

Exhibit B-15

CLAIM 40	InterSense IS-300



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Unlimited Range.
The IS-300 is completely sourceless. This means no setup, no line-of-sight constraints and virtually unlimited operating range. The signal processor is small enough to wear on a belt for tetherless application.

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No Slosh or Drift.
InterSense's proprietary micromachined inertial sensor unit and signal processing virtually eliminates the sloshy response common to inclinometers and the accumulation of drift error that plagues ordinary gyroscopes.

Software Compatibility.
If your application uses software that supports industry-standard trackers, you won't have to change a line of code to use the IS-300!

INTERSENSE

InterSense IS-300 Ex. 2.

Exhibit B-15

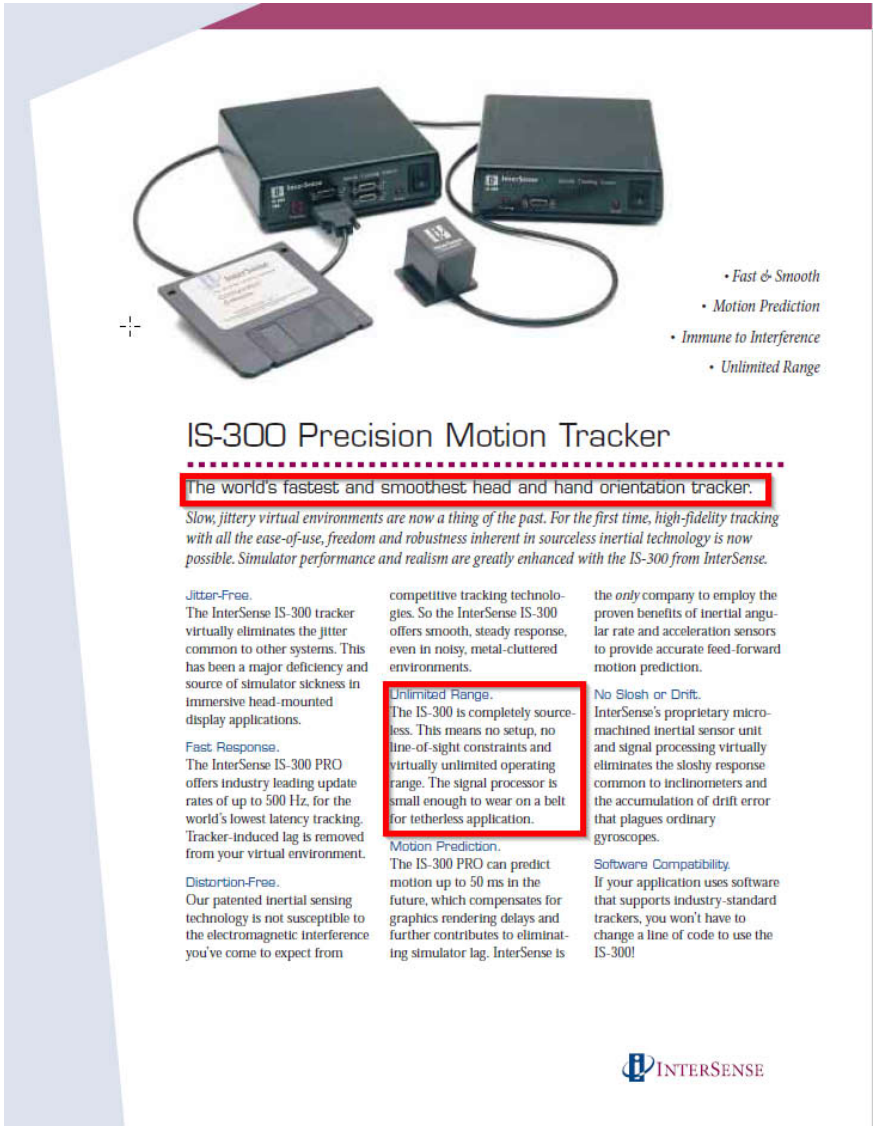
CLAIM 40	InterSense IS-300
	See Disclosures with respect to Claim 1, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

DD. DEPENDENT CLAIM 41

CLAIM 41	InterSense IS-300
[41] The method of claim 40, further comprising using signals from said first tracker to obtain a sourceless measurement of the orientation of the user's head.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 40, further comprising using signals from said first tracker to obtain a sourceless measurement of the orientation of the user's head. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See, e.g.*:

Exhibit B-15

CLAIM 41	InterSense IS-300



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Software Compatibility.
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INTERSENSE

InterSense IS-300 Ex. 2.

CLAIM 41	InterSense IS-300
	See Disclosures with respect to Claim 40, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

EE. DEPENDENT CLAIM 42

CLAIM 42	InterSense IS-300
[42] The method of claim 41, further comprising using signals from said first and second trackers to track both the position and orientation of the body part.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 41, further comprising using signals from said first and second trackers to track both the position and orientation of the body part. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 41, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

FF. DEPENDENT CLAIM 43

CLAIM 43	InterSense IS-300
[43] The method of claim 42, further comprising using relative range measurements between said head and said body part to correct drift in said tracking of the position and orientation of the body part.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 42, further comprising using relative range measurements between said head and said body part to correct drift in said tracking of the position and orientation of the body part. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 42, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.

Exhibit B-15

GG. DEPENDENT CLAIM 44

CLAIM 44	InterSense IS-300
[44] The method of claim 43, further comprising providing signals to a haptic feedback device based on said tracked position or said tracked orientation.	At least under Plaintiffs' apparent infringement theory, InterSense IS-300 discloses, either expressly or inherently, the method of claim 43, further comprising providing signals to a haptic feedback device based on said tracked position or said tracked orientation. In the alternative, this element would be obvious over InterSense IS-300 in light of the other references disclosed in Defendants' Invalidity Contentions and/or the knowledge of one of ordinary skill in the art. *See* Disclosures with respect to Claim 43, *supra*; *see also* Defendants' Invalidity Contentions for further discussion.